

In re Application of: Stopczynski, Lawrence Gerard
Response to January 10, 2005 Final Office Action
Serial No.. 10/635,893
Customer Number. 46796
Attorney Docket No.: FORD5

CLAIMS

Please enter the following clarifying amendments.

1. (Previously Presented) A method of controlling a sensor in an automotive vehicle, said method comprising the steps of:

establishing a first vehicle operational criteria associated with a first vehicle operational safety feature and a second vehicle operational criteria associated with a second vehicle operational safety feature;

determining a sensor beam coverage area for said first and second vehicle operational criteria or said first and second vehicle operational safety feature;

receiving a status parameter representing the operational status of said vehicle;

activating said sensor for scanning said sensor beam coverage area when said status parameter meets said vehicle operational criteria; and

simultaneously operating said first and second vehicle operational safety features.

2. (Original) The method of claim 1, wherein said sensor beam coverage area comprises front and side regions of said vehicle.

3. (Original) The method of claim 1, wherein said sensor includes a plurality of sensing beams for defining a frontal and side coverage area.

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4. (Original) The method of claim 1, wherein said sensor beam coverage area comprises a 180 degree coverage area from an origination point.

5. (Original) The method of claim 1, wherein said sensor beam coverage area comprises a 270 degree coverage area from an origination point.

6. (Original) The method of claim 1, wherein said status parameter represents a gear selected by an operator.

7. (Original) The method of claim 1, wherein said status parameter represents a speed of said vehicle.

8. (Original) The method of claim 1, wherein said operational safety feature comprises one of adaptive cruise control, parking assistance, pre-crash sensing or airbag pre-arming.

9. (Original) The method of claim 1, wherein said vehicle operational safety feature is selected by an operator.

10. (Previously Presented) A method of controlling a sensor in an automotive vehicle having a plurality of frontal vehicle operational safety features and a plurality of side

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vehicle operational safety features to be activated depending on the presence of a remote object, said method comprising the steps of:

establishing a vehicle operational criteria associated with each of said plurality of both frontal and side vehicle operational safety features;

determining a sensor beam coverage area for each of said plurality of vehicle operational criteria or said frontal and side vehicle operational safety features, said sensor beam coverage area comprising frontal and side regions of said vehicle;

receiving a status parameter representing the operational status of said vehicle;

activating said sensor for scanning selected sensor beam coverage areas when said status parameter meets one of said vehicle operational criteria, said sensor scanning said selected sensor beam coverage areas on a time-interleaved basis; and

simultaneously operating said plurality of frontal vehicle operational safety features and said plurality of side vehicle operational safety features.

11. (Original) The method of claim 10, wherein said sensor beam coverage area comprises a 180 degree coverage area from an origination point.

12. (Original) The method of claim 10, wherein said sensor beam coverage area comprises a 270 degree coverage area from an origination point.

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13. (Original) The method of claim 10, wherein said status parameter represents a gear selected by an operator.

14. (Original) The method of claim 10, wherein said status parameter represents a speed of said vehicle.

15. (Original) The method of claim 10, wherein said vehicle operational safety feature comprises one of adaptive cruise control, parking assistance, pre-crash sensing or airbag pre-arming.

16. (Original) The method of claim 10, wherein said vehicle operational safety feature is selected by an operator.

17. (Previously Presented) A method of controlling a sensor in an automotive vehicle having a plurality of vehicle operational safety features to be activated depending on the presence of a remote object, said method comprising the steps of:

providing a set of vehicle operational safety features corresponding to the presence of frontal remote objects;

providing a set of vehicle operational safety features corresponding to the presence of side remote objects;

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establishing a vehicle operational criteria associated with each of said plurality of frontal vehicle operational safety features;

establishing a vehicle operational criteria associated with each of said plurality of side vehicle operational safety features;

one of said frontal and one of said side vehicle operation criteria corresponding to the same vehicle operational criteria;

determining a frontal sensor beam coverage areas for each of said plurality of frontal vehicle operational criteria or frontal vehicle operational safety features;

determining a side sensor beam coverage areas for each of said plurality of side vehicle operational criteria or side vehicle operational safety features;

receiving a status parameter representing the operational status of said vehicle;

activating said sensor for scanning desired frontal and side sensor beam coverage areas when said status parameter meets one of said vehicle operational criteria; and

simultaneously operating said plurality of vehicle operational safety features.

18. (Currently Amended) A sensor for sensing a front and side of an automotive vehicle, said sensor comprising:

a housing;

a plurality of beams in said housing, each of said beams associated with a frontal or side coverage area, said coverage area including far, near, wide or narrow coverage; and

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a controller ~~for activating said respective frontal and side beams depending upon the activation of said automotive vehicle to establish a plurality of vehicle operational criteria associated with a plurality of vehicle operational safety modes; and~~

wherein said controller is adapted to determine said coverage area for said vehicle operational criteria and said vehicle operational safety modes, receive a status parameter corresponding to an operational status of said vehicle, and activate at least one of the beams for scanning said coverage area when said status parameter meets said vehicle operational criteria; and

wherein said controller is further adapted to simultaneously operate ~~a~~ the plurality of vehicle operational safety modes ~~in response to the activation of said automotive vehicle.~~

19. (Currently Amended) The sensor of claim 18, wherein one of said frontal or side beams is associated with ~~an~~ the operational status of said vehicle.